

Engelbrot Pocket Cards

BASE SUBSYSTEM COMMANDS

Append Statement (at) ADDRESS/[TYPEIN] (to) ADDRESS (join with) TYPEIN/[ADDRESS] CR

Break Statement (at) ADDRESS LEVADJ CR

Connect (to) Directory TYPEIN/[ADDRESS] (Password) PASSWORD CR

Copy Directory (to) TYPEIN/[ADDRESS] (to follow) ADDRESS LEVADJ CR

Copy File (from) TYPEIN/[ADDRESS] (to) TYPEIN/[ADDRESS] CR

Copy STRING (from) ADDRESS/[TYPEIN] (to follow) ADDRESS CR

Copy STRUCTURE (from) ADDRESS/[TYPEIN] (to follow) ADDRESS LEVADJ CR

Copy Sequential (file from) TYPEIN/[ADDRESS] (to follow) ADDRESS LEVADJ CR

Create File TYPEIN/[ADDRESS] CR

Delete All (markers) CR

Delete File TYPEIN/[ADDRESS] CR

Delete Marker (named) TYPEIN/[ADDRESS] CR

Delete Modifications (to file) CR (really?) CR

Delete STRING/STRUCTURE (at) ADDRESS CR

Edit Statement (at) ADDRESS EDITSTRING CR

Expunge Directory CR

Force (Case) Mode Upper/Lower/First CR

Force (Case) STRING/STRUCTURE (at) ADDRESS CR

Insert STRING (to follow) ADDRESS TYPEIN/[ADDRESS] CR

Insert STRUCTURE (to follow) ADDRESS LEVADJ TYPEIN/[ADDRESS] CR

Load File TYPEIN/[ADDRESS] CR

Logout CR logs you out of NLS & Tenex; does not disconnect TIP

Mark Character (at) ADDRESS (with marker named) TYPEIN/[ADDRESS] CR

Move STRING (from) ADDRESS/[TYPEIN] (to follow) ADDRESS CR

Move STRUCTURE (from) ADDRESS/[TYPEIN] (to follow) ADDRESS LEVADJ CR

Output Journal (quickprint) CR*

Output Printer File TYPEIN/[ADDRESS] CR to compile through Output Processor to the new file you name

Output Quickprint CR* 1 copy of current file

Output Remote (printer—TIP) TYPEIN/[ADDRESS] (port #) TYPEIN/[ADDRESS] (send form feeds?) ANSWER (wait at page break?) ANSWER (Go?) ANSWER*

Output Terminal CR (send form feeds?) ANSWER (wait at page break?) ANSWER (Go?) ANSWER*

Print File CR*

Print Rest CR from current statement to end of file*

Print STRUCTURE (at) ADDRESS VIEWSECS CR*

Replace STRING/STRUCTURE (at) ADDRESS (by) TYPEIN/[ADDRESS] CR

Reset Case (mode) CR

Reset Viewsecs CR

Set Content (pattern) To TYPEIN/[ADDRESS] CR then turn on viewspec i or k

Set NLS (protection for file) Private CR

Set NLS (protection for file) Public CR

Set Viewsecs VIEWSECS CR

Show Disk (space status) CR

Show File Return (ring) CR

Show File Status CR

Show Marker (list) CR

Show Return (ring) CR

Show Viewsecs (status) CR

Simulate (terminal type) DEVICES CR (DEVICES defined under "USEROPTIONS")

Sort STRUCTURE (at) ADDRESS CR

Substitute STRING (in) STRUCTURE (at) ADDRESS (new STRING) TYPEIN/[ADDRESS] (for old STRING) TYPEIN/[ADDRESS] (Finished?) ANSWER

* Type <CTRL-O> to stop printing

Transpose STRING STRUCTURE (at) ADDRESS (and) ADDRESS CR

Trim Directory (No. versions to keep) TYPEIN/[ADDRESS] CR (really?) CR

Update File CR

Update File Compact CR

Verify File CR

LF prints next statement

\ backslash—prints current statement

/ slash—prints current context of CM

↑ uparrow—prints back statement

• period—prints current location of CM

USEROPTIONS SUBSYSTEM COMMANDS

Feedback Terse/Verbose CR

Feedback Length TYPEIN/[ADDRESS] CR 1 to 50

Reset Feedback Length CR to 50

Control (characters for terminal) DEVICES CR (control character) CONTROLFUNCTIONS (character(s)) TYPEIN/[ADDRESS] (echo as) TYPEIN/[ADDRESS] CR

DEVICES = Tl/Nvt/Lineprocessor/Imlac/Execuport/33-tty/35-tty/37-tty

CONTROLFUNCTIONS = Ca/Cd/Rpt/Insert/Bc/Bw/Bs/Litesc/Ignore/Sd/Sw/Tab

Herald Length TYPEIN/[ADDRESS] CR 0 to 10

Prompt Full/Off/Partial CR

Recognition (mode) RECOGNITIONMODE CR

Reset All CR all useroptions back to defaults

Reset Control (characters for terminal) All/DEVICES CR

Reset Herald Length CR to 4

Reset Recognition (mode) CR to Terse Terse

Reset Viewsecs CR to original defaults

Show All CR shows current status of all useroptions; you may show individual useroptions by name

Viewsecs Default VIEWSECS CR redefines the default set

PROGRAMS SUBSYSTEM COMMANDS

Load Program TYPEIN/[ADDRESS] CR

Run Program TYPEIN/[ADDRESS] CR or use Goto command if it runs as SUBSYSTEM

Show Status (of programs buffer) CR shows loaded programs & size

Delete All (programs in buffer) CR

Delete Last (program in buffer) CR

IN CASE OF TROUBLE

If you see "BAD FILE: TYPE CA", specify Help BAD CR (See "HELP").

Anytime you can't tell if anything is happening, type <CTRL-T> and you'll see whether NLS is running or waiting for your input.

To recover from an error condition, or if <CTRL-T> isn't answered, type <CTRL-C> (see "SYNTAX CONVENTIONS")

Do not type <CTRL-C> in the middle of actually executing an editing command.

For immediate assistance, call the Office-1 operator at (408) 996-2770 or do this in Tenex:

@link<SP>OPERATOR CR to establish link

@; TYPEIN to communicate with each other

@bye CR to break link

For additional assistance, suggestions, bug reporting, etc., SNDMSG to FEEDBACK@OFFICE-1 or Sendmail to IDENT FEEDBACK

SRI-ARC 21-APR-75 25765

TNLS-8 QUICK REFERENCE

SYNTAX CONVENTIONS & SPECIAL CHARACTERS

This reference card shows the most frequently used TNLS commands. What you type appears here in red boldface, what the system types back at you appears in brown boldface, characters that either may type depending on recognition mode (see "COMMAND RECOGNITION") appear in blue, and our comments appear in italics. Words all in upper case letters are variables, that is, selections you can make.

SUBSYSTEM Base or Programs or Sendmail or Useroptions or Calculator or Tenex (or a loaded userprogram which runs as a subsystem)

STRING Character or Word or Visible or Invisible or Number or Link or Text

STRUCTURE Statement or Group or Branch or Plex

ADDRESS in a TNLS command, the way you specify a location in a file. See "ADDRESSING"

TYPEIN Type in any string of characters except a CR or CD, and end with a CR.

CR Carriage Return key; confirms a command or terminates a field within a command. CA or INSERT or REPEAT may be used instead of CR. INSERT and REPEAT have special functions at certain times (see below).

CA <CTRL-D> may replace CR anytime in NLS

REPEAT <CTRL-B> instead of CR, at the end of any command, executes command and starts it over up to the next place you can specify something. The repeats go on until you type CD.

INSERT <CTRL-E> instead of CR, at the end of a command in Base subsystem only, executes command and starts "Insert Statement" command, using current location for ADDRESS. The inserts continue until you type CD.

CD <CTRL-X> Command Delete aborts a command immediately

LEVADJ any number of level-adjustment characters: u for up, d for down, terminated by a <SP> or CR

VIEWSECS a string of any VIEWSPEC codes terminated by a CR, or just a CR for no change. (See "VIEWSECS")

ANSWER y for yes, n for no

CM Control Marker points to the character where NLS is operating at any moment.

/ logical "or"; See / in Base commands.

[] squarebrackets enclose optional elements which you can use by typing <CTRL-U> first.

ALT ALT MODE or ESCAPE key

LF LINEFEED key

<SP> SPACE key

<CTRL- > surrounding a character indicates a control character; type that character while holding down the CONTROL or CTRL key

<CTRL-A> delete/backspace previous character or command element

<CTRL-C> interrupts NLS processing and returns control to the Tenex Exec. Can be useful in emergencies when no other character does anything. To recall NLS, see "CALLING NLS"

<CTRL-O> stops printing

<CTRL-V> literal escape, used in TYPEIN to precede character which otherwise has special function

<CTRL-W> delete/backspace previous word

TIP COMMANDS

Using the system through the ARPA Network:

For terminals with movable print head running 30 cps or over, use:
E to get the TIP's attention

@1<SP>43 (or the number of desired host) **CR** to connect to site 43 (Office-1)

A message will indicate you have reached Tenex at the requested site, and its herald "@@" will print on the next line.

@c **CR** to disconnect TIP after logging out of the system

LOGIN; CALLING NLS

Log in upon reaching Tenex; it prints its herald "@@" when ready:

@login <SP> **USERNAME** <SP> **PASSWORD** <SP> **ACCT CR** Login to Tenex
USERNAME Type in your username
PASSWORD Type in your password; it won't echo
ACCT Type in your account number or omit for default account

@nls **CR** Calls NLS; also use to start over in NLS after an NLS Quit, or after a <CTRL-C>

If Tenex or NLS asks for your Ident, type it in followed by **CR**.

VIEWSPECS

a show one level less
b show one level more
c show all levels
d show first level only
e show to the referenced level only
g show branch only
h show all branches
i filter statements
j don't filter statements
k show next filtered statement
l show plex only
m statement numbers/SIDs on
n statement numbers/SIDs off
q show one line less
r show one line more
s show all lines
t show first lines only
w show all lines & all levels
x show only one line & one level
y show a blank line between statements
z don't show blank lines
A level indenting on
B level indenting off
C show statement names
D don't show statement names
E paginate when printing
F don't paginate
G statement numbers/SIDs on right
H statement numbers/SIDs on left
I show SIDs, not statement numbers
J show statement numbers, not SIDs
K show statement signatures
L don't show statement signatures

ADDRESSING & LINKS

A LINK is: <ADDRESS : VIEWSPECS>

You don't need anglebrackets < > when you TYPEIN a Link.
Parentheses () as well as anglebrackets can demark links.

An ADDRESS may be: FILE-ADDRESS and/or IN-FILE-ADDRESS

FILE-ADDRESS: Specify the file first:

SITE, DIRECTORY, FILENAME,
These terms will default from left to right if omitted; i.e.
DIRECTORY, FILENAME, will assume current site; **FILENAME,** alone will assume current site and current directory; omit all three terms for current file. The number of commas determines which word is taken as filename and which as directory, etc. Omit commas for omitted fields.

IN-FILE-ADDRESS: Specify a location within the file by typing a sequence of one or more of the following elements, separated from each other by a <SP>

JUMPING & SEARCHING in files (letters preceded by a period):
A number (defaulted to 1) between the period and the letter dictates the number of moves.

.b	back	.o	origin
.c	next occurrence of content	.p	predecessor
.d	down	.r	return
.e	end	.s	successor
.fr	file return	.t	tail
.h	head	.u	up
.l	find and take the LINK	.w	next occurrence of word
.n	next statement		

SKIP within statement (a letter preceded by + or -):
A plus (+) means skip ahead in the statement; a minus (-) means skip backward.
A number (defaulted to 1) between the +/- and the letter dictates the number of such skips.

+c skip to character
+e skip to last character (end) of statement
+f skip to first character (front) of statement
+i skip to invisible
+l skip to link
+n skip to number
+v skip to visible
+w skip to word

EXAMPLES

SID; Statement IDentifier (no preceding character): 012
STATEMENT NUMBER (no preceding character): 1a2b3c
ANY NAME (no preceding character): STATEMENTNAME
NEXT NAME (preceded by an asterisk): *STATEMENTNAME
MARKER SEARCH (preceded by pound sign): #MARKER
CHARACTER SEARCH (preceded by single quote): 'a
(may be followed by = and a number and s to limit search to NUMBER statements. Number defaults to 1) 'a=3s
CONTENT SEARCH (surrounded by quotes): "TYPEIN"
(may be followed by = and then w [for the content as word], with optional number, and/or s [for statements to search in] with optional number. Number defaults to 1) "TYPEIN"=2w3s
SLASH (prints context of CM): /
BACKSLASH (prints statement containing the CM): \
Omission of an IN-FILE-ADDRESS defaults to the first character of the file given as FILE-ADDRESS, or the current location if no FILE-ADDRESS is given either.

End an ADDRESS with **CR**

COMMAND RECOGNITION

You or the system type the words in blue according to your recognition mode:

Terse: For common commands, type the first letter; for others type a space and then secondary mode takes over. For secondary mode Terse, type enough letters after the space. Secondary modes Anticipatory, Demand, & Fixed work as described below.

Fixed: You type the first three letters.

Anticipatory: It will take off when you've typed enough letters.

Demand: Type as many letters as you think are enough, then hit ALT or a SPACE.

HELP

? at any time in NLS (except in a TYPEIN) shows your current alternatives.

For explanation of your alternatives at any point, type <CTRL-Q>

Use a Help command for menued information on how to use each NLS subsystem:

Help **CR** or Help TYPEIN **CR**

For TYPEIN give a word or phrase you want defined, or a menu number from your last Help view.

After <CTRL-Q> or a Help command, ? tells you how to continue getting Help.
CD stops Help.

COMMANDS IN ALL SUBSYSTEMS

Execute (command in) SUBSYSTEM

Goto (subsystem) SUBSYSTEM **CR**

Jump (to) Address ADDRESS VIEWSPECS **CR** (use ? or Help to learn about other Jump commands)
Help **CR** see "HELP"

Quit **CR** returns to previous NLS subsystem or to Exec if none

Quit To SUBSYSTEM **CR** returns to the one named

? to list current alternatives

<CTRL-Q> to get Help with current alternatives

< shows subsystem stack

> shows current subsystem

; TYPEIN for comments

SENDMAIL SUBSYSTEM COMMAND

Interrogate **CR** (distribute for action to:) IDENTLIST **CR**
(distribute for information only to:) IDENTLIST **CR** (title:)
TYPEIN/[ADDRESS] (type of source:) ITEM (show status?)
ANSWER (send the mail?) ANSWER

ITEM = STRUCTURE (at) TYPEIN/[ADDRESS]
or File ADDRESS
or Message TYPEIN/[ADDRESS]
or Offline TYPEIN/[ADDRESS]

FINDING IDENTS

Whenever an IDENT is required, and you don't know the correct IDENT of an individual or group, type one of these instead:

.LASTNAME searches for individuals with last name LASTNAME
.BEGINLASTNAME. . . searches for all individuals whose last name begins with BEGINLASTNAME
"TYPEIN" searches for the occurrence of TYPEIN in the name of all individuals, groups, and organizations

<CTRL-O> stops the search

Sendmail subsystem command to read the record for an IDENT:

Show Record (for Ident) TYPEIN/[ADDRESS] **CR** TYPEIN or ADDRESS of an Ident

SYMBOL	VALUE OR MEANING IN ADDRESS LIST
\$a	last displayed address
\$bN	address at which breakpoint N is set
\$c	catchphrases for current frame
\$e	TENEX JSYS error message
\$f	current frame
\$fb	bottom frame on stack
\$fo	frame of current frame's owner
\$ft	top frame on stack
\$f+[N]	+ Nth (defaults to 1) frame
\$f-[N]	- Nth (defaults to 1) frame
\$f@N	frame with mark N
\$j	FILSTAT
\$jN	FILSTAT for JFN N
\$l	display current frame's locals - NOT IMPLEMENTED YET
\$lN	address of local N of the current frame
\$m	MEMSTAT
\$mN	MEMSTAT for page N
\$p	display formal parameters of current frame
\$pN	address of formal parameter N of the current frame
\$q	last displayed value
\$r	return address of the current frame
\$s	signal status
\$y	last evaluated address-range-element
\$z	shorthand for last used address list
%port	PORT location of current frame
%mark	MARK location of current frame
%coreturn	CORETURN location of current frame

ADDRESS LIST DELIMITERS

- :
 - :
- separates ranges in address lists
separates range elements in address ranges

MEANINGS OF ADDRESS LIST TERMINATORS

(May Also Be Used As Commands)

- TAB display address list & then display the cell whose address was contained in the last displayed cell
- # display address list & then display the cell which was displayed immediately prior to the last displayed cell (will do an inverse TAB)
- LINEFEED display address list & then display the cell whose address is one greater than the last displayed cell (will work for strings, frames, records.)
- ↑ display address list & then display the cell whose address is one less than the last displayed cell (will do the right thing for frames & records.)
- + display address list in current output mode giving a chance to modify each item as it is displayed
- \ display address list as L10 strings
- / display address list using permanent typeout mode
- = display value for address list
- ! display cells in address list in ASCII
- [display address list numerically
-] display address list as L10 records
- ? display owning file for symbols in address list
- OPTION get output mode to use from specified command to follow; this terminator allows the user to modify the output mode, and by terminating the output mode with an OPTION, also to modify the address list as it is displayed
- CA display address list in current output mode

CONTROL CHARACTER USE

- <↑L> interrupt executing programs and enter DAD; if already in DAD, stop generating output and return to command state. (This is a deferred PSI and thus may take 2 before it has any effect.)
- <↑K> give (non-verbose) status of executing programs; only valid when programs are executing and user is not in DAD.

MOUSE and KEYSSET, Codes and Cases

Mouse

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Buttons: 000 010 100 001 110 011 101 111

Case: -0- -1- -2- -3- -4- -5- -6- -7-

Keyset Code

Keyset	Code	CD	BC	CA	BW	RPT	ESC
00000							
00001	a	A	!				
00010	b	B	"				
00011	c	C	#	Case 3: 001			
00100	d	D	\$	Has no meaning			
00101	e	E	%	with keyset input			
00110	f	F	&				
00111	g	G	'				
01000	h	H	(				
01001	i	I	)	Case 4: 110			
01010	j	J	@	Take each keyset			
01011	k	K	+	code as a			
01100	l	L	-	lowercase viewspec			
01101	m	M	*				
01110	n	N	/				
01111	o	O	:	Case 5: 011			
10000	p	P	0	Interpret keyset code			
10001	q	Q	1	as control character			
10010	r	R	2	(only works on some			
10011	s	S	3	lineprocessors)			
10100	t	T	4				
10101	u	U	5	Case 6: 101			
10110	v	V	6	Search for marker			
10111	w	W	7	named by keyset			
11000	x	X	8	combination			
11001	y	Y	9				
11010	z	Z	=				
11011	.	<	[	Case 7: 111			
11100	.	>	]	Take each keyset			
11101	:	:	--	code as a			
11110	?	\	ALT	capital viewspec			
11111	SP	TAB	CR				

VIEWSPECS

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a show one level less
b show one level more
c show all levels
d show first level only
e level of referenced statement
f recreate window if necessary
g show branch only
h show all branches
i filter statements
j don't filter statements
k show next filtered statement
l show plex only
m statement numbers/SIDs on
n statement numbers/SIDs off
o frozen statements on
p frozen statements off
q show one line less
r show one line more
s show all lines
t show first lines only
u recreate display after each change
v defer recreating display
w show all lines and all levels
x show one line and one level only
y blank line between statements on
z blank line between statements off
A level indenting on
B level indenting off
C show statement names
D don't show statement names
E paginate when printing (TNLS only)
F TNLS:no paging/DNLS:recreate display
G statement numbers/SIDs right
H statement numbers/SIDs left
I show SIDs, not statement numbers
J show statement numbers, not SIDs
K statement signatures on
L statement signatures off
O user sequence generator on
P user sequence generator off
Q indenting offset to CM level with l/g